

**AMENDMENTS TO THE DRAWINGS**

Replacement sheet numbers 4/7 and 5/7 are attached herewith and labeled "Replacement Sheet."

## **REMARKS**

This paper is presented in response to the Examiner's Office Action mailed October 18, 2004 (the "Office Action"). Claims 1-5 and 25-27 have been withdrawn by the Examiner, and claims 6, 12 and 22 are amended. Claims 6-24 are now pending in this application as a result of such withdrawals.

Reconsideration of this application is respectfully requested in view of the amendment herein and the following remarks. For the convenience and reference of the Examiner, the remarks of the Applicant are presented in the order in which the corresponding issues were raised in the Office Action.

### **I. Objection to the Drawings**

The Examiner has objected to the drawings "as failing to comply with 37 C.F.R. 1.84(p)(5)." In light of the corrected drawings submitted herewith, Applicant respectfully submits that the objection has been overcome and should be withdrawn.

### **II. Objection to the Specification**

The Examiner has objected to the specification "as failing to provide proper antecedent basis for the claimed subject matter." Specifically, the Examiner alleges that "The specification does not disclose that the flat-top frequency response is essentially constant over a bandwidth about a defined carrier channel wavelength, wherein the bandwidth is about  $\pm 6$  nm as recited in claims 12 and 22." Applicant disagrees with the position of the Examining Attorney but submits that in light of the amendment to the specification submitted herewith, the objection has been overcome and should be withdrawn. Because the material added in connection with the amendment herein to paragraph 0032 appeared in the application (at claims 12 and 22) as

initially filed, Applicant believes that no new matter is entered in the application as a result of the foregoing amendment.

### **III. Claim Rejections**

In connection with the matters contemplated herein, Applicant respectfully notes at the outset that the following discussion should not be construed to constitute an exhaustive enumeration of the distinctions between the claims of the present application and the references cited by the Examiner. Instead, such distinctions are presented solely by way of example. Consistent with the foregoing, the discussion herein is not intended, and should not be construed, to prejudice or foreclose future consideration, by the Applicant, of additional or alternative distinctions between the claims of the present application and the references cited by the Examiner.

Moreover, Applicant notes that the claim amendments and/or arguments herein have been made merely to clarify the claimed embodiments from elements purported by the Examiner to be taught by the cited references. These claim amendments should not be construed as an acquiescence, on the part of the Applicant, as to the purported teachings or prior art status of the cited references, nor as to the characterization of the cited references advanced by the Examiner. Accordingly, Applicant reserves the right to challenge the purported teaching and prior art status of the cited references at any appropriate time.

#### **A. Claim rejections under 35 U.S.C. § 112, second paragraph**

The Examiner has rejected claims 12 and 22 under 35 U.S.C. § 112, second paragraph, alleging that such claims are “indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.” Specifically, the Examiner has

stated that “It is unclear how the flat-top frequency response can be essentially constant over a bandwidth of  $\pm 6\text{nm}$ .”

As presently understood by Applicant, the rejection of the Examiner appears to be based on the recitation in claims 12 and 22 of “a bandwidth of  $\pm 6\text{nm}$ ,” since the “essentially constant” nature of the “flat-top frequency response” stated in the rejection is recited, respectively, in claims 11 and 21, which have not been rejected on grounds of indefiniteness. Applicant disagrees with the position of the Examiner but submits that in view of the clarifying amendments to claims 12 and 22 herein, the rejection of the Examiner has been overcome and should be withdrawn.

**B. Claim rejections under 35 U.S.C. § 103(a)**

Applicant respectfully notes at the outset that in order to establish a prima facie case of obviousness, it is the burden of the Examiner to demonstrate that three criteria are met: first, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; second, there must be a reasonable expectation of success; and third, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See M.P.E.P. § 2143.

**1. Purported obviousness of claims 6-11 and 13-14**

With attention now to the specific rejections, the Examiner has rejected claims 6-11, 13-21 and 23-24 under 35 U.S.C. § 103(a) as being unpatentable over U.S. 6,256,433 to Luo et al. (“*Luo*”) in view of U.S. 6,512,615 to Wu (“*Wu*”). For at least the reasons outlined herein

however, Applicant respectfully disagrees with the Examiner and submits that the rejection of those claims should be withdrawn.

The Examiner has characterized the *Luo* reference as teaching “an optical add/drop module comprising: a drop portion including a plurality of thin film filters (thin film three-port devices), wherein each thin film filter drops a particular channel from a WDM signal; and an add portion that adds channels of the WDM signal dropped by the drop portion back to the WDM signal, wherein the add portion comprises a plurality of interleavers disposed in stages in a cascade arrangement (column 2, lines 1-12 and 35-47).” As presently understood by Applicant, the position of the Examiner appears to be that the “drop portion” recited in claim 1 is taught by *Luo* at col. 2, lines 1-12 where *Luo* refers to an “OADF module 100 [is] shown in Fig. 2, which utilizes two non-absorbing interference filters 210 and 220.” However, a closer reading of *Luo* reveals that the position of the Examiner in that regard is not well-founded.

In particular, Figure 2 of *Luo* indicates an arrangement of “two non-absorbing interference filters 210 and 220” where a multiplexed signal ( $\lambda_1 \dots \lambda_4$ ) is input to the first “interference filter 210” which drops the  $\lambda_2$  component. The remaining components of the signal, namely  $\lambda_1$ ,  $\lambda_3$  and  $\lambda_4$ , are then passed to the next “interference filter 220” which adds the  $\lambda_2$  that was previously dropped by the “interference filter 210,” so that the output from the “interference filter 220” is the same multiplexed signal ( $\lambda_1 \dots \lambda_4$ ) that was initially input to the first “interference filter 210.” As shown in Figure 2 of *Luo* then, the first “interference filter 210” of the “OADF module 100” drops a component of a multiplexed signal, while the second “interference filter 220” of the “OADF module 100” adds a component to a signal.

In contrast, claim 6 requires “a drop portion [comprising] a plurality of thin film filters, wherein each thin film filter drops a particular channel from a WDM signal” (emphasis added). Even if multiple OADF modules 100 were cascaded, as the Examiner appears to suggest is

disclosed by *Luo* at col. 2, lines 37-45, it is nonetheless clear from Figure 2 of *Luo* that only one of the thin film filters of any OADF module 100 drops a channel. For the foregoing reasons, at least, Applicant submits that the Examiner has failed to establish that *Luo* discloses a “drop portion” as recited in claim 6.

As well, claim 6 further requires an “add portion that adds channels of the WDM signal dropped by the drop portion” wherein the “add portion” includes “a first stage of interleavers” and “a final stage including a thin film interleaver.” However, Applicant respectfully submits that the Examiner has failed to clearly identify those particular aspects of *Luo* that the Examiner believes constitute such an “add portion.” For example, the portions of *Luo* cited by the Examiner in support of the rejection, namely col. 2, lines 1-12 and lines 35-47, make no reference whatsoever to “interleavers,” much less “interleavers” such as are recited in claim 6. This is likewise true with respect to independent claim 15, discussed below. Thus, not only is it unclear what aspects of *Luo* the Examiner believes to constitute an “add portion,” but the Examiner has failed, in any case, to establish that *Luo* discloses an “add portion” as recited in claim 6.

Further, and as noted above in connection with the discussion of Figure 2 of *Luo*, a channel adding function is asserted in *Luo* to be performed by components of what the Examiner has characterized as the “drop portion,” namely, an “interference filter 220” of the “OADF module 100” (see Figure 2 of *Luo*). In view of the channel adding functionality purported by *Luo* to be implemented by the “interference filter 220,” there would appear to be no need in the *Luo* device for such an “add portion” in any event.

Applicant thus respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to claim 6, at least because the Examiner not demonstrated that *Luo* teaches or suggests the “add portion” or the “drop portion” as recited and arranged in claim

6. Thus, even if the cited references are combined in the manner that Examiner has suggested is obvious, the resulting combination does not include all the limitations of claim 6.

By virtue of their dependency from claim 6, claims 7-11 and 13-14 are directed to an optical add/drop module that requires, among other things, “a drop portion [comprising] a plurality of thin film filters, wherein each thin film filter drops a particular channel from a WDM signal.” Consistently, dependent claims 7-11 and 13-14 further require an “add portion that adds channels of the WDM signal dropped by the drop portion” wherein the “add portion” includes “a first stage of interleavers” and “a final stage including a thin film interleaver.” However, as noted above in the discussion of claim 6, *Luo* fails to teach or suggest the “add portion” and “drop portion” recited in claim 6. Moreover, the Examiner has failed to establish, among other things, that such “drop portion” is taught or suggested by the *Wu* reference. Note that although the Examiner has not yet considered claim 12 on the merits, the foregoing points are germane in view of the dependency of claim 12 from claim 6.

In view of the foregoing discussion, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to claims 6-14 and the rejection of such claims should accordingly be withdrawn.

## **2. Purported obviousness of claims 15-24**

The Examiner has asserted that claims 15-24 are rendered obvious, in part because, according to the Examiner, *Luo* discloses an “add portion.” In general, the discussion of claim 6 above is germane as well to claims 15-24. For example, it was noted above in connection with the discussion of claim 6 that the Examiner has failed to clearly identify those particular aspects of *Luo* that the Examiner believes constitute such an “add portion.” Thus, the assertion by the Examiner that it would have been obvious to modify an “add portion,” such as recited in claim

15, with the purported teachings of *Wu*, falls well short of establishing a *prima facie* case of obviousness with respect to claim 15.

Moreover, and as discussed above in connection with claim 6, a channel *adding* function is asserted in *Luo* to be performed by the components of what the Examiner has characterized as a “drop portion,” namely, the “OADF module 100” (see Figure 2 of *Luo*). In view of the channel adding functionality purported by *Luo* to be implemented by the “interference filter 220” of the “OADF module 100,” there is no need for, or motive to include, an “add portion” in the *Luo* device in any case.

By virtue of their dependency from claim 15, claims 16-24 are directed to an optical add/drop module that requires, among other things, “a drop portion” and an “optical add portion.” Accordingly, Applicant submits that claims 16-24 are likewise unobvious for at least the same reasons outlined above in connection with the discussion of claim 15. Note that although the Examiner has not yet considered claim 22 on the merits, the foregoing points are germane in view of the dependency of claim 22 from independent claim 15.

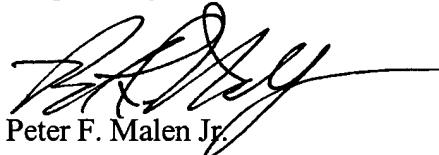
For at least the foregoing reasons, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to claims 15-24, and the rejection of those claims should accordingly be withdrawn.

## CONCLUSION

In view of the remarks and amendment submitted herein, Applicant respectfully submits that each of the pending claims 6-24 is now in condition for allowance. Therefore, reconsideration of the rejections is requested and allowance of those claims is respectfully solicited. In the event that the Examiner finds any remaining impediment to a prompt allowance of this application that could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate the same with the undersigned attorney.

Dated this 4<sup>th</sup> day of January, 2005.

Respectfully submitted, .



Peter F. Malen Jr.  
Attorney for Applicants  
Registration No. 45,576  
**Customer No. 022913**  
Telephone No. (801) 533-9800

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